# ABSTRACT BOOK

## International Seminar of Research Month 2018
## "Science and Technology for People Empowerment"

**Venue**

**Friday, November 23rd, 2018**

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## ROOM 1 SESSION 1

| # | ID PAPER | AUTHORS | TITLE |
|---|---|---|---|
| 1 | NA1-1 | M. Arifin, P. Sukaryorini, T. Mudjoko | Effieiency Of Using NPK Fertilizer With Vermicompost Addition To The Growth And Results Of Soybeans Plants (*Glycine Mox*) |
| 2 | NA1-2 | Y. Wuryandari, S. Wiyatiningsih, Suwandi | Application Of *Pseudomonas Fluorescent* Isolate Pf-122 Biopesticide Formulation To Induce The Growth And Production Of Solanaceae Plants |
| 3 | NA1-3 | Makhziah, Sukendah | Performance And Genetic Variability Of Maize (*Zea Mays* L.) Mutant Inbred Lines |
| 4 | NA1-4 | Sutmi, W. Wurjani, D. A. Purwanto, W. Muslihatin | Secondary Metabolites In Vivo In Vitro *Camellia Sinensis* L. Plants That Have Role On Fields: Agroindustry And Health |
| 5 | NA1-5 | P. Suryaminarsih, S. H. Harijani, W. Mindari | Study Of Multiantagonis Of Streptomyces Sp. And Trichoderma Sp. On Horticulture Plant Disease In Soil Marginal |
| 6 | NA1-6 | Harijani S. H., W. Mindari, P. Suryaminarsih | The Role Of Multiantagonis Streptomyces Sp. And Trichoderma Sp. Of Pest Properties On The Horticulnural Plant In Marginal Soil |
| 7 | NA1-7 | K.S.M. Julyasih, A. Purnawati | Antifungal Activitity Of Seaweeds Against *Aspergillus Flavus* |
| 8 | NA1-8 | N. Rahmadhini, D. U. Pribadi, A. Purrawati | Application Of Refugia Planting System As Natural Enemy Microhabitat On Rice Plants In Kuluran, Kalitengah, Lamongan Regency |
| 9 | NA1-9 | A. Purnawati, N. Rahmadhini, E. Syafriani | Endophytic Bacteria From Lowlands Agriculture To *Ralstonia Solanacearum* |
| 10 | NA1-10 | W. Mindari, Siswanto, Suwandi | Evaluation Of The Application Results Of NPK-Humate On Sandy Soil In The Intercropping System Of Peanuts And Vegetable Plants |

3rd International Seminar of Research Month 2018

# "Study of Multiantagonis of *Streptomyces* sp. and *Trichoderma* sp. on Horticulture Plant Disease in Soil Marginal"

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**Abstract**

*Streptomyces* sp., *Trichoderma* sp. are saprophyte soil microorganism as biological agens of some plant deseases. The purpose of utilization of multiantagonis of *Streptomyces* sp., *Trichoderma* sp. is to improve the microbial competence as decomposers and biological agents in increasing crop production and resistance to major diseases of horticultural crops on marginal soils. It was done in Pare (Regusol), Gunung Anyar (Andosol) and Gresik (Vertisol) regions. The implementation of the study of multiantagonist *Streptomyces* sp., *Trichoderma* sp was arranged with a factorial completely randomized design. The multiantagonist concentration uses a composition ratio of 3: 1. The first factor is tomato, chili and melon, the second factor is the application with 3 doses of 100 mL, 200 mL and 300 mL plants, and the same dose of humic acid in the mixture of biological agents. Observations include the percentage of disease attacks, microbial populations, and leaf ethylen content. The results of the observations show that on the land of vertisol (Gresik) and Regusol (Pare) soil-borne soil pathogens are not significant. Aplication of multiantagonist *Streptomyces* sp., *Trichoderma* sp. can reduce the average percentage of Xantomonas cracks of melon , chili dwarf and tomato will diseases compared to the percentage of plant disease without multiantagonists.

**Keywords:** doses, ethylene, diseases, reduce.